Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-62. (canceled)

63. (currently amended) A surgery system, comprising:

at least two smart instruments, wherein each smart instrument comprises a housing, a plurality of LEDs coupled with the housing and adapted to fire independently, and a first transceiver;

a computer system; and

a sensor system adapted to wirelessly sense the position of the at least two smart instruments and to transmit position information to the computer system, wherein the sensor system includes a sensor array comprising a plurality of position sensors and at least a second transceiver; and

wherein, for each of the smart instruments in consecutive order, the respective second transceiver wirelessly transmits an instruction from the sensor system to the respective first transceiver thereof that causes the LEDs thereof to fire independently one at a time in order to be recognized by the surgery system, and wherein the surgery system cycles successively through all of the smart instruments that are active and temporarily sets the number of LEDs to be activated on an unused active smart instrument to zero.

64. (original) A surgery system, as set forth in claim 63, wherein the computer system includes a monitor and wherein the computer system is adapted to display a diagram of a patient on the monitor.

65. (original) A surgery system, as set forth in claim 64, wherein the computer system is adapted to display a representation of one of the at least two smart instruments on the diagram.

66. (original) A surgery system, as set forth in claim 65, wherein the one of the at least two smart instruments is in use.

67. (original) A surgery system, as set forth in claim 66, wherein the computer system is adapted to alternatively determine the position of the at least two smart instruments.

68-73. (canceled)

74. (previously presented) A surgery system, comprising:

at least one smart instrument;

a validation tool, the validation tool including:

a base;

four columns coupled to the base;

at least one validation point; and,

a plurality of infrared light emitting diodes coupled to the base; and,

a computer system;

a sensor system adapted to wirelessly sense the position of the at least one smart instrument and the validation tool and to transmit position information to the computer system, wherein the validation tool is adapted to validate the at least one smart instrument;

wherein the sensor system includes a sensor array; and

wherein the sensor array includes at least three linear CCD cameras and at least one transceiver.

75. (previously presented) A surgery system, comprising:

at least one smart instrument;

a calibrating tool, the calibrating tool including:

a base;

four columns coupled to the base;

a plurality of infrared light emitting diodes coupled to the base;

an upper plate and a lower plate slidably coupled to the four columns, the upper and lower plates each including an aperture for receiving the smart instrument during a calibration process;

a computer system; and

a sensor system adapted to wirelessly sense the position of the at least one smart instrument and the calibrating tool and to transmit position information to the computer system, wherein the calibrating tool is adapted to calibrate the at least one smart instrument;

wherein the sensor system includes a sensor array; and

wherein the sensor array includes at least three linear CCD cameras and at least one transceiver.

76. (previously presented) A surgery system, comprising:

a smart instrument being composed of a flexible material and having a plurality of light emitting diodes on a first side of the flexible material and a wireless transceiver coupled with the flexible material;

a computer system; and,

a sensor system adapted to wirelessly sense the position of the plurality of light emitting diodes and to transmit position information to the computer system, wherein the sensor system includes a sensor array that includes a plurality of position sensors and at least a second transceiver; and

wherein the sensor system wirelessly transmits an instruction from the second transceiver to the first transceiver that causes the LEDs to fire independently one at a time in order to be recognized by the surgery system.

77. (original) A surgery system, as set forth in claim 76, wherein the computer system is adapted to determine the contour of the smart instrument and perform a surface matching operation with a known contour.

78. (original) A surgery system, as set forth in claim 76, wherein the smart instrument is part of a dynamic reference frame.

79-80. (canceled)